Data and Analysis Center for Software

The Data and Analysis Center for Software (DACS) serves as the authoritative US Department of Defense (DoD) source for state-of-the-art software engineering and technology information to support the software community. It provides a centralized hub for distributing software data and resources and offers technical support for acquiring, developing, testing, validating, and transitioning software technology and processes.

A ONE-STOP REPOSITORY

The DACS Web site at http://iac.dtic.mil/dacs lists over 40 software technical and management areas where users can find or link to best practices, topic-area experts, tools, literature, and other related resources, including the following:

- Broadcast Services—Users may register to receive e-mail notices when changes in policy, standards, technology, etc. appear on our Web site.
- Bibliographic Services—These services acquaint users with the procedures required to perform bibliographic searches of DACS' Software Engineering Bibliographic Database (SEBD).
- Databases/Datasets—These services provide access to our SEBD and Software Life Cycle Empirical/ Experience Database (SLED).
- How to Hire the DACS—DACS performs Technical Areas Tasks (TATs) to solve software technology, management, or process problems.
- Products and Services—Our store allows purchase of DACS products/ services not otherwise available.

- Software Tech News—This quarterly DACS newsletter provides cuttingedge, topical information.
- DACS Technical Reports—Most reports are available free of charge.

THE DACS GOLD PRACTICE INITIATIVE

This initiative is part of the broader DACS mission to collect and disseminate information about effective practices for software acquisition and development. It responds to an identified need within the DoD community to establish effective practices as part of a solution for acquiring and developing Software-Intensive Systems (SIS) while meeting the challenges of increasing complexity and affordability. The purpose of the initiative is two-fold:

- To provide our customers (in both public and private sectors) with "valueadded" and continuously updated information about current practices for software acquisition and development
- To collect valuable information from software practitioners about implementing software practices and to share it with the community of practitioners



DACS coined the term

"Gold Practice" instead of
using "best practice" as
a way to focus on helping
our customers make
informed decisions about
which practices might be
well suited to their particular
environment. The value of a

practice is not judged or labeled based on its historical record. DACS shares what is known about a practice and what practitioners (and the literature) report to us. DACS Gold Practice Initiative is available online at http://www.goldpractices.com

THE DACS ROI DASHBOARD

The DACS Return On Investment (ROI)
Dashboard provides the user with information on the costs and benefits of various improvements to software technology and processes. All data supporting the Dashboard is obtained from open-source literature. Users can access the information in the database repository at http://iac.dtic.mil/databases/roi The following software technologies and processes are covered by the DACS ROI Dashboard:

- Capability Maturity Model (CMM)
 Software Process Improvement
- Capability Maturity Model Integration (CMMI) Software Process Improvement
- · Clean-room Software Engineering

- Extreme Programming
- Goal Question Metric
- International Organization for Standardization (ISO) 9001
- Inspections
- The Personal Software Process (PSP)
- Software Reuse
- Software Process Improvement (SPI)
- The Team Software Process (TSP)

Improvement metrics reported and displayed include the following:

- ROI
- Productivity
- Quality
- Re-work
- Product Cost
- Improvement Cost
- Cycle Time
- Schedule Variance

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